

CLAIMS

What is claimed is:

1. A transport system for transport of containers, in particular a baggage handling system, comprising:
at least one switch having an entry zone, an exit zone with at least two different transport paths for conveying a container to conveyors immediately disposed downstream of the exit zone, and a switch mechanism for selectively controlling the transport of the container to the transport paths;
a support assembly defining a plane for support of the container between the entry zone and the exit zone;
an alignment and propulsion mechanism disposed in the entry zone for aligning and advancing the container in a controlled manner;
a propulsion and guide assembly rendered operative in response to a transport of the container along the transport paths, said propulsion and guide assembly including at least two modules constructed for cooperation with the transport paths in one-to-one correspondence and disposed in the exit zone below the plane of the support assembly, said modules being controlled such that only the one of the modules is raised into a plane above the plane of the support assembly when the container is transported along the associated transport path.

2. The transport system of claim 1, wherein the alignment and propulsion mechanism has a catch member extending transversely to the plane of the support assembly and constructed for engagement against opposite longitudinal sides of a recess formed in an underside of the container and extending in longitudinal direction of the container to thereby apply a contact pressure upon the container and advance the container.
3. The transport system of claim 2, wherein the catch member includes two driving belts which are routed about rollers and have outer belt sides for abutment against the longitudinal sides of the recess, each of said rollers defining an axis extending transversely to the plane of the support assembly.
4. The transport system of claim 3, wherein the longitudinal sides of the recess extend in parallel relationship.
5. The transport system of claim 2, wherein the catch members are configured as cone-shaped rollers rolling on the longitudinal sides of the recess.
6. The transport system of claim 5, wherein the longitudinal sides of the recess extend slantingly outwards away from one another.

7. The transport system of claim 2, wherein each of the longitudinal sides of the recess is configured with increasingly outward curvature toward a mid-section thereof.
8. The transport system of claim 1, wherein the support assembly has rotatably supported ball rollers for support of the container.
9. The transport system of claim 1, wherein the support assembly has sliding surfaces for support of the containers.
10. The transport system of claim 1, wherein the switch mechanism includes an operating element in the form of a leaf spring, which extends transversely to the plane of the support assembly and has opposite flat sides, and plural guide rollers disposed on the flat sides in parallel relationship, said leaf spring having one end securely fixed in an entry-zone-proximal region and another end outwardly deflectable through bending.
11. The transport system of claim 10, wherein the switch mechanism includes a rocker arm constructed for outwardly deflecting the leaf spring, and a four-bar linkage for guiding the leaf spring along a radius of curvature.

12. The transport system of claim 1, wherein each of the modules of the propulsion and guide assembly includes rollers extending transversely to the plane of the support assembly, and at least one driving belt, for engagement against opposite longitudinal sides of a recess of the container to advance the container.
13. The transport system of claim 1, wherein each of the modules of the propulsion and guide assembly includes rollers extending transversely to the plane of the support assembly for engagement against opposite longitudinal sides of a recess of the container to advance the container by rolling on the longitudinal sides.
14. The transport system of claim 1, wherein the propulsion and guide assembly includes a servomotor for operating the modules, said servomotor having a motor shaft for support of cam plates which actuate lifting elements for selectively lifting and lowering the modules.

15. The transport system of claim 1, wherein at least one of the alignment and propulsion mechanism and the propulsion and guide assembly is constructed as flat-top chain with prisms or trapezoids disposed transversely to a chain moving direction in parallel relationship, wherein the prisms or trapezoids engage in a longitudinal recess of the container to thereby realize a frictional engagement with slanted longitudinal sides of the recess for guiding and advancing the container, whereby the prisms or trapezoids have outwardly directed sides resting against the longitudinal sides.